

Application/Control Number: 10/007,234  
Art Unit: 1700

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**CLMPTO**

**W.M.**

**11/15/04**

1. (currently amended) An electrochemical sensor, comprising:  
a substrate having a surface, said surface having at least one notch for holding gas;  
an electrolytic material extending over said surface and spaced apart from said surface and said notch for providing an electrical connection; and  
a film of electrode material placed between and in direct physical contact with both said surface and said electrolytic material for defining a passage; and  
a passage defined by said notch, said film of electrode, and said electrolytic material for permitting gas to flow;  
wherein the gas simultaneously contacts said film and said electrolytic material.
2. (original) The electrochemical sensor according to claim 1, wherein said electrolytic material is not in contact with said at least one notch.
3. (cancelled)
4. (original) The electrochemical sensor according to claim 1, wherein said substrate is an electrically insulating material.
5. (original) The electrochemical sensor according to claim 1, wherein said substrate is glass.
6. (original) The electrochemical sensor according to claim 1, wherein said film is a metallic material.
7. (original) The electrochemical sensor according to claim 1, wherein said electrolytic material is a polymer.

8. (original) The electrochemical sensor according to claim 1, wherein said electrolytic material is in a solid state.
9. (original) The electrochemical sensor according to claim 1, wherein said at least one notch is etched.
10. (original) The electrochemical sensor according to claim 1, wherein said electrolytic material is Nafion.
11. (cancelled)
12. (cancelled)

13. (currently amended) An electrochemical sensor, comprising:

- a substrate having a surface, said surface having at least one notch for holding gas;
- a first electrolytic material extending over said surface and spaced apart from said surface and said notch for providing an electrical connection;
- a first film of electrode material placed between and in direct physical contact with both said surface and said first electrolytic material for defining a passage; and
- a second film of electrode material deposited on at least one area of said notch[.]  
; and
- a passage defined by said notch, said first film, said second film, and said first electrolytic material for permitting gas to flow;
- wherein the gas simultaneously contacts said first film, said second film, and said first electrolytic material.

14. (original) The electrochemical sensor according to claim 13, wherein a second electrolytic material is placed in contact with said second film.
15. (original) The electrochemical sensor according to claim 13, wherein said at least one notch is etched.
16. (currently amended) An electrochemical sensor, comprising:
  - a substrate having a surface, said surface having at least one notch for holding gas;
  - a first electrolytic material extending over said surface and spaced apart from said surface and said notch for providing an electrical connection;
  - a first film of electrode material placed between and in direct physical contact with both said surface and said first electrolytic material for defining a passage;
  - a second film of electrode material deposited on at least one area of said notch; and
  - a second electrolytic material placed in contact with said second film[.]; and
  - a passage defined by said notch, said first film, said second film, and said first electrolytic material, and said second electrolytic material for permitting gas to flow;
  - wherein the gas simultaneously contacts said first film, said second film, said first electrolytic material, and said second electrolytic material.
17. (original) The electrochemical sensor according to claim 16, wherein said second electrolytic material is spin coated on said second film.